

CLAIMS:

1. (Currently Amended): A system in a message source for secure communication, comprising:

- a random value generator configured to generate a random value;
- a message validation code generator coupled to the random value generator and configured to generate a message validation code based on a predetermined key, a message, and the random value;
- a one-time pad generator coupled to the random number generator and configured to generate a one-time pad based on the random value and the predetermined key; [[and]]
- a masked message generator coupled to the one-time pad generator and configured to generate a masked message based on the one-time pad and the message, and
- a transmitter configured to transmit a secure message that comprises the random value, the masked message, and the message validation code to a message target, wherein the message target is configured to unmask the masked message to form the message and validate the message using the message validation code.

2. (Original): The system as recited in claim 1, wherein the message validation code generator employs a first one-way hash function.

3. (Original): The system as recited in claim 2, wherein the one-time pad generator employs the first one-way hash function.

4. (Original): The system as recited in claim 1, wherein the message validation code generator employs a first one-way hash function and the one-time pad generator employs a second one-way hash function.

5. (Original): The system as recited in claim 1, further comprising a protected message envelope generator coupled to the random value generator, the message validation code generator, and the masked message generator, and configured to generate a protected

message envelope based on the random value, the message validation code, and the masked message.

6. (Currently Amended): The system as recited in claim 5, ~~further comprising a wherein~~ the transmitter is coupled to the protected message envelope generator and configured to transmit the protected message envelope to ~~[[a]] the message target~~.

7. (Currently Amended): A system in a message target for secure communication, comprising:

a receiver configured to receive a secure message transmitted from a message source, wherein the secure message comprises a protected message envelope;

a protected message envelope reader configured to receive ~~[[a]] the~~ protected message envelope and generate extract a random value, a masked message, and a first message validation code based on from the received protected message envelope, wherein the random value, the masked message, and the first message validation code are generated at the message source;

a one-time pad generator coupled to the protected message envelope reader and configured to generate a one-time pad based on the random value and a predetermined key; and

a message unmasker coupled to the one-time pad generator and protected message envelope reader, and configured to generate an unmasked message based on the one-time pad and the masked message.

8. (Original): The system as recited in claim 7, wherein the one-time pad generator employs a first one-way hash function.

9. (Original): The system as recited in claim 7, further comprising a validation module coupled to the protected message envelope reader and the message unmasker, the validation module comprising:

a message validation code generator configured to generate a second message validation code based on the predetermined key, the unmasked message, and the random value; and

a message validation code comparator coupled to the protected message envelope reader and the message validation code generator and configured to generate a validation based on the first message validation code and the second message validation code.

10. (Original): The system as recited in claim 9, wherein the validation module employs a first one-way hash function.

11. (Original): The system as recited in claim 9, wherein the validation module employs a first one-way hash function and the one-time pad generator employs a second one-way hash function.

12. (Currently Amended): A method in a message source for secure communication, comprising:

generating a random value;
generating a message validation code based on a message, the random value, a predetermined key, and a first one-way hash function;
generating a one-time pad based on the random value, the predetermined key, and a second one-way hash function; [[and]]
generating a masked message based on the message and the one-time pad; and transmitting a secure message that comprises the random value, the masked message, and the message validation code to a message target,
wherein the message target is configured to unmask the masked message to form the message and validate the message using the message validation code.

13. (Original): The method as recited in claim 12, further comprising generating a protected message envelope based on the random value, the masked message, and the message validation code.

14. (Currently Amended): The method as recited in claim 13, ~~further comprising transmitting wherein the secure message comprises~~ the protected message envelope to a target destination.

15. (Original): The method as recited in claim 12, wherein the first one-way hash function and the second one-way hash function are the same one-way hash function.

16. (Canceled)

17. (Canceled)

18. (Currently Amended): A method in a message target for secure communication, comprising:

receiving a secure message transmitted from a message source, wherein the secure message comprises a random value, a masked message, and a first message validation code, wherein the random value, the masked message, and the first message validation code are generated at the message source;

generating a one-time pad based on the random value, a predetermined key, and a first one-way hash function; and

generating an unmasked message based on the one-time pad and the masked message.

19. (Original): The method as recited in claim 18, further comprising:

generating a second message validation code based on the unmasked message, the random value, the predetermined key and a second one-way hash function; and

comparing the first message validation code to the second message validation code to determine a validity of the unmasked message.

20. (Original): The method as recited in claim 19, wherein the first one-way hash function and the second one-way hash function are the same one-way hash function.

21. (Currently Amended): The system method of claim 18, wherein the secure message comprises a protected message envelope, the method further comprising:

receiving a protected message envelope; and

generating a extracting the random value, [[a]] the masked message, and [[a]] the first message validation code based on from the received protected message envelope.

22. (Currently Amended): A computer program product for secure communications in a message source, the computer program product having a computer readable medium with a computer program embedded thereon, the computer program comprising:

computer code for generating a random value;

computer code for generating a message validation code based on a message to be sent, the random value, a predetermined key, and a first one-way hash function;

computer code for generating a one-time pad based on the random value, the predetermined key, and a second one-way hash function;

computer code for generating a masked message based on the message to be sent and the one-time pad; [[and]]

computer code for generating a protected message envelope based on the random value, the masked message, and the message validation code; and

computer code for transmitting the protected message envelope to a message target,

wherein the message target is configured to unmask the masked message to form the message and validate the message using the message validation code.

23. (Currently Amended): A computer program product for secure communications in a message target, the computer program product having a computer readable medium with a computer program embedded thereon, the computer program comprising:

computer code for receiving a protected message envelope transmitted from a message source;

computer code for generating extracting a random value, a masked message, and a first message validation code based on the protected message envelope, wherein the

random value, the masked message, and the first message validation code are generated at the message source;

computer code for generating a one-time pad based on the random value, a predetermined key, and a first one-way hash function;

computer code for generating an unmasked message based on the one-time pad and the masked message;

computer code for generating a second message validation code based on the unmasked message, the random value, the predetermined key, and a second one-way hash function; and

computer code for comparing the first message validation code to the second message validation code to determine a validity of the unmasked message.